Serial Number 10/091,899

What is claimed is:

Original

1. A programmable, multi-colored, digital pool light system
capable of operating multiple light sources and varying the
power provided to each light bulb and thereby providing virtually
unlimited amounts of light intensity, color blending and
saturation, said light system comprising:

a housing shaped to fit an existing niche in an underwater
application, said housing having an upper end and a lower end,

a light bulb mounting plate having a plurality of light
bulb retaining recesses, said mounting plate being mounted within
said housing at said upper end,

a plurality of high intensity light bulbs mounted in said
light bulb retaining recesses,

a plurality of light dispersing dichroic lenses mounted
above selected light bulbs,

a PC board having transistors, a programmable microprocessor
means, a connector means for connecting said light bulbs to
said microprocessor means, and a three wire power cord connected
to an ON/OFF switch, said PC board being mounted in said lower
end of said housing, and

a sealing mechanism secured at said upper end of said
housing, said sealing mechanism having a domed glass lens, and

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a rubber seal, said glass lens and rubber seal being securely

fastened to said housing with a sealing clamp.


Amended

2. A programmable, multi-colored, digital pool light

system of claim 1 wherein said programmable microprocessor means

includes a process:

for blending different primary colors into a rainbow of

color output,

for providing an unlimited number of different lighting

scripts, including changing colors, varying colors, varying

light output, sequencing uniformly, non-uniformly and randomly,

and for pulsing the lights to the beat of music,

for synchronizing with multiple light fixtures keeping

all the colors the same for each light fixture,

for resetting the lights to the brightest light color,

white, upon start up,

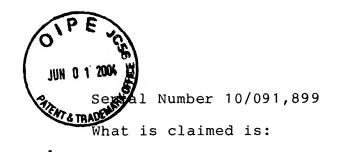for communicating with controllers outside of the

fixture,

for providing information to the end user [such as]

including "white light on", "red light on" and, "bulb is out",

[etc].

for using the existing ON/OFF switch for selecting the

programs, and

for reprogramming remotely by wire, IR, and radio link.


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Serial Number 10/091,899

What is claimed is:

Original

1. A programmable, multi-colored, digital pool light system capable of operating multiple light sources and varying the power provided to each light bulb and thereby providing virtually unlimited amounts of light intensity, color blending and saturation, said light system comprising:

a housing shaped to fit an existing niche in an underwater application, said housing having an upper end and a lower end,

a light bulb mounting plate having a plurality of light bulb retaining recesses, said mounting plate being mounted within said housing at said upper end,

a plurality of high intensity light bulbs mounted in said light bulb retaining recesses,

a plurality of light dispersing dichroic lenses mounted above selected light bulbs,

a PC board having transistors, a programmable microprocessor means, a connector means for connecting said light bulbs to said microprocessor means, and a three wire power cord connected to an ON/OFF switch, said PC board being mounted in said lower end of said housing, and

a sealing mechanism secured at said upper end of said housing, said sealing mechanism having a domed glass lens, and

a rubber seal, said glass lens and rubber seal being securely
fastened to said housing with a sealing clamp.

Amended

2. A programmable, multi-colored, digital pool light
system of claim 1 wherein said programmable microprocessor means
includes a process:

for blending different primary colors into a rainbow of
color output,

for providing an unlimited number of different lighting
scripts, including changing colors, varying colors, varying
light output, sequencing uniformly, non-uniformly and randomly,
and for pulsing the lights to the beat of music,

for synchronizing with multiple light fixtures keeping
all the colors the same for each light fixture,

for resetting the lights to the brightest light color,
white, upon start up,

for communicating with controllers outside of the
fixture,

for providing information to the end user including "white
light on", "red light on" and, "bulb is out",

for using the existing ON/OFF switch for selecting the
programs, and

for reprogramming remotely by wire, IR, and radio link.